

Translation

PATENT COOPERATION TREATY

PCT/EP2003/010657



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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference B02/0620PC	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/EP2003/010657	International filing date (<i>day/month/year</i>) 25 September 2003 (25.09.2003)	Priority date (<i>day/month/year</i>) 26 September 2002 (26.09.2002)
International Patent Classification (IPC) or national classification and IPC C01B 7/04		
Applicant BASF AKTIENGESELLSCHAFT		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
 - a. ☒ (*sent to the applicant and to the International Bureau*) a total of 1 sheets, as follows:
 - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - b. ☐ (*sent to the International Bureau only*) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items:
 - ☒ Box No. I Basis of the report
 - ☐ Box No. II Priority
 - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - ☐ Box No. IV Lack of unity of invention
 - ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - ☐ Box No. VI Certain documents cited
 - ☐ Box No. VII Certain defects in the international application
 - ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 26 February 2004 (26.02.2004)	Date of completion of this report 03 January 2005 (03.01.2005)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2003/010657

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ The international application as originally filed/furnished
- ☒ the description:
- pages _____ 1-5 _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- pages _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* _____ 1-4 _____ received by this Authority on _____ 10 December 2004 (10.12.2004)
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1 - 4	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1 - 4	NO
Industrial applicability (IA)	Claims	1 - 4	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

D1: GB-A-1 263 806 (ESSO RES & ENG COMP) 16 February 1972
(1972-02-16)

D2: US-A-5 935 897 (TRUEBENBACH PETER ET AL) 10 August
1999 (1999-08-10)

1. The subject matter of claims 1-4 is novel with respect to the cited prior art within the meaning of PCT Article 33(2).

2. The present application does not satisfy the requirements of (PCT Article 33) for the following reasons:

2.1. Document D1 (page 1, lines 11-43; page 2, line 77; claims 1, 3, 6) discloses gold-bearing catalysts supported on molecular sieves or aluminum oxide as well as corresponding methods for oxidizing hydrogen chloride into chlorine with oxygen. Although D1 does not specify any concentrations, it can be concluded from the fact that these catalysts were produced by ion exchange that the range of concentrations for the gold according to D1 falls within the extremely broad

range of concentrations according to claim 1 of the present application (0.001 to 30% by weight).

Document D2 (column 12, lines 29-67; claims 1, 2, 4; examples) discloses catalysts as well as methods for oxidizing hydrogen chloride into chlorine with oxygen. The catalysts can be supported and gold can be selected as an active component. The metal-supported catalysts in the examples according to D2 contain metal concentrations in the range of 0.001 to 30% by weight.

A person skilled in the art would thus arrive at the subject matter of claim 1 by an appropriate selection from D1 and D2. In view of the fact that the application lacks any evidence of the effects (examples) associated with the selection undertaken in claim 1, this selection must be considered random, and an inventive step cannot be acknowledged.

The subject matter of at least claim 1 does not involve an inventive step with respect to documents D1 and D2 within the meaning of PCT Article 33(3). Therefore, this claim at least does not satisfy the requirements of PCT Article 33.

- 2.2. Dependent claims 2-4 do not contain any additional features that, in combination with the features of any claim to which they refer back, meet the PCT requirements for inventive step, since the additional features defined therein fall within the competence of a person skilled in the art who is engaged in providing alternative catalysts or production methods. This is particularly true given the fact that the application does not contain any examples that could be used to support the advantages mentioned in the description.

Dependent claims 2-4 do not satisfy the PCT
requirements with respect to inventive step (PCT
Article 33(3)).